

1 – 16. (canceled)

17. (currently amended) A system for maintaining qualification of an operator by using an authentication recording medium which stores readable identification data and readable/writable skill authentication data of an operator, the system comprising:

(a) a terminal for maintenance operation for managing and maintaining a system or device at a work site by using said authentication recording medium, said terminal for maintenance operation including a first authentication recording medium read/write device cooperable with said authentication recording medium;

(b) a mobile terminal including a second authentication recording medium read/write device cooperable with said authentication recording medium;

(c) a data management server at a server site, and a PC for education of an operator, said PC including a third authentication recording medium read/write device cooperable with said authentication recording medium, and said PC connecting to said data management server at said server site by a local area network, wherein

in the system for maintaining qualification of an operator, said terminal for maintenance operation (a) at said work site is remote and not directly communicatively connected to said data management server (c) at said server site, but said terminal for maintenance operation (a) is connected to receives data from said data management server (c) through said authentication recording medium, and said skill authentication data is transferred between said terminal for maintenance operation (a) and said data management server (c) via said mobile terminal (b) and a communication network,

the system for maintaining qualification of an operator uses said authentication recording medium to authenticate an operator to carry out a maintenance operation of said system or device at said work site by inserting said authentication recording medium into said first authentication recording medium read/write device of said terminal for maintenance operation,

said skill authentication data stored in said authentication recording medium includes operation authority for said system or device to be managed/maintained at said work site,

operation qualification level, expiration data of operation qualification level, contents of operation record including time, number of times and name of apparatus, data regarding work or operation status including continuous work time and past quality management data including operation error, and contents to be downloaded to said authentication recording medium includes operation authority for said system or device to be managed/maintained at said work site, operation qualification level, expiration data of operation qualification level, data regarding work or operation status including continuous work time and past quality management data including operation error,

said mobile terminal has a function to read the data stored in said authentication recording medium by using said second authentication recording medium read/write device and to send said data stored in said authentication recording medium to said data management server at said server site via said communication network, and a function to additionally record or update data received from said data management server in said authentication recording medium by using said second authentication recording medium read/write device,

said data management server at said server site includes a database for data regarding work or operation status and a database for quality management data, and has a function to collect and analyze data uploaded to said database, to make operator qualification determinations and to download the qualification level determinations to said authentication recording medium as skill authentication data, and upon receiving urgent operation approval data registered by an administrator, said data management server has a function to download the data via said mobile terminal to said authentication recording medium by using said second authentication recording medium read/write device,

said PC for education at said server site includes an authentication recording medium data reading/writing application program, a work application program, and an educational application program which is a program for educating an operator, and said PC for education has a function to provide educational material for self-learning regarding various operations, and a function to transmit a result of learning performed by an operator to said data management server via said local area network, receive a qualification determination from

said data management server via said local area network, and additionally has a function to record/update said result of learning performed by an operator to said authentication recording medium as skill authentication data by using said third authentication recording medium read/write device, and

said terminal for maintenance operation at said work site includes an operation application program and an authentication application program for said authentication recording medium, and said terminal for maintenance operation has a function to read data recorded in said authentication recording medium through said first authentication recording medium read/write device, to confirm identification authentication based on identification authentication data, and to authenticate a certain range of operation based on said skill authentication data, and after performing a maintenance operation, said terminal for maintenance operation has a function to log the contents of an operation record by an operator and to store the contents of the operation record to said authentication recording medium by using said first authentication recording medium read/write device.